

## Aqueous polymer dispersions

## Abstract

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The present invention provides an aqueous polymer dispersion having a minimum film-forming temperature of below +65°C comprising at least one film-forming polymer in the form of dispersed polymer particles comprising a polymer phase P1 and a  
10 different polymer phase P2, the polymer dispersion being obtainable by free-radical aqueous emulsion polymerization comprising the following steps:

- i) polymerization of a first monomer charge M1 to give a  
15 polymer P1 having a theoretical glass transition temperature  $T_g^{(1)}$  (according to Fox) and
- ii) polymerization of a second monomer charge M2 to give a  
polymer P2 having a theoretical glass transition temperature  
20  $T_g^{(2)}$  (according to Fox) which is different from  $T_g^{(1)}$

in the aqueous dispersion of the polymer P1, at least one chain transfer reagent being used either in the polymerization of the monomer charge M1 or in the polymerization of the monomer  
25 charge M2.

The invention also provides a process for preparing the polymer dispersion and provides for its use as a binder for coating compositions, in particular for latex paints.

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